



FERTILIZING FIELD SECTION 801

801.1 Scope. To establish procedures for inspecting and reporting agricultural lime and commercial fertilizer. Commercial fertilizer includes bulk fertilizer, bagged commercial fertilizer, and liquid fertilizer.

801.2 Procedure.

801.2.1 Bulk Fertilizer. Bulk fertilizer may be accepted on the basis of the supplier's or manufacturer's certification. The certification shall include the project number, route, county, supplier's name, a certifying statement, a guaranteed analysis of each component, and shall be signed by responsible personnel of the supplier. The bill of lading or truck ticket accompanied by a certification statement may be used if all the information required for a certification is shown. A copy of the certification is to be retained in the district office.

801.2.2 Bagged Fertilizer. Bagged fertilizer may be accepted on the basis of bag label analysis. The guaranteed analysis on the bag label is to be shown on the acceptance report. Samples of commercial bagged fertilizer are not necessary as the Missouri laws governing the labeling of fertilizer and penalties for breaching those laws are adequate to insure compliance to the bag label analysis.

801.2.3 Liquid Fertilizer. Liquid fertilizer shall be accepted on the basis of the supplier's certification and sampling and testing of the mixture in the tanks. Random sampling of the shipments shall be performed at the discretion of the district Operations Engineer with a minimum of 10 percent of the shipments to be sampled. A sample of liquid fertilizer is to consist of approximately 1/2 gallon [2 liters] and is to be submitted to the Laboratory in a 1/2 gallon [2 liters] plastic jug (jug and packaging to be as described in [Field Sec 1070](#) of this Manual) accompanied by identification form T-617. Certifications and the distribution of the certifications are to be as described in Paragraph 801.2.1 of this Section.

801.2.4 Agricultural Lime. Except as described in Paragraph 801.2.4.1 of this section, agricultural lime will be accepted on the basis of the certification of analysis furnished to the lime producer or supplier by the Director of the Missouri Agriculture Experiment Station at Columbia, Missouri, in accordance with the Missouri Agriculture Liming Materials Act. The certification of analysis will include the calcium carbonate equivalent, the fineness factor, and the effective neutralizing material per ton [Mg] of lime. A copy of the certification of analysis shall be made available by the producer or supplier at the source where agricultural lime is presented for inspection. The amount of agricultural lime to be applied is determined from the effective neutralizing material per ton [Mg].

801.2.4.1 When agricultural lime is to be furnished from a source that has not been tested and certified in accordance with the Missouri Agricultural Liming Materials Act, the material will be sampled and the sample submitted to the Laboratory for determination of calcium carbonate equivalent, fineness factor, and the effective neutralizing material. All tests will be performed in the Laboratory. It is anticipated that sampling and testing by the Missouri Department of Transportation will be infrequent and will only be done in such instances as when crushing is performed on the project or when an agriculture lime stockpile has been previously abandoned and is then proposed for use on a project(s). Samples are not to be taken for the purpose of checking the Agriculture Experiment Station's (AES) results, to fill in a gap in the AES sampling schedule, or at the producer supplier's request. The only Missouri Department of Transportation sample and test anticipated at a source engaged in the production and sale of agriculture limestone would be a field gradation check for the amount of plus No. 8 [2.36 mm] material and that only needs to be done when visual examination indicates a probable deviation.



801.2.4.2 If a sample and test is deemed necessary, a sample taken at the beginning of each construction season from each such source will usually be sufficient. The results obtained on this sample may apply to all shipments, during a construction season, from this source until a change in operations or material indicates that a new sample should be obtained. All such sources of agricultural lime supplying material are to be sampled as "General" and the sample submitted to the Laboratory for calcium carbonate equivalent, fineness factor, and effective neutralizing material per ton [Mg]. A sample is to consist of a full cement sample sack, (approximately 5 lbs. [2 kg]). Form T-617 is to be used as an identification sheet when submitting a sample to the Laboratory. Field testing for gradation for the purpose of calculating the fineness factor is not allowed because the necessary equipment is not available in the Districts.

801.3 Report. Reports shall indicate acceptance, qualified acceptance, or rejection. Appropriate remarks, as described in [General Sec 7.1.2](#) of this Manual, are to be included in the report to clarify conditions of acceptance or rejection.

801.3.1 Bulk fertilizer, bagged commercial fertilizer, and liquid fertilizer are to be reported according to automation section [AS-3510](#). The report shall show the quantity of each component, the guaranteed analysis of each component, and the amount of the effective material of each component based on the guaranteed analysis.

Distribution of reports for materials purchased under a Department purchase order is to be described in [Field Sec 2001](#) of this Manual.

801.3.2 Agricultural lime is to be reported according to automation section [AS-3510](#).

801.3.2.1 If the agricultural limestone is accepted on the basis of the Agricultural Experiment Station's analysis, the report shall show the rolling or moving average (of the last three samples) of effective neutralizing material (ENM), and fineness factor from the Certification of Analysis, and the last sample number and the date of that sample. The report shall show the quantity of effective neutralizing material (ENM) contained in the shipment. The quantity of material shipped, or information that would allow the reader to determine that quantity, shall be included in the remarks or the body of the report.

801.3.2.2 If the agricultural limestone is accepted on the basis of tests performed by the Laboratory, the report shall show the effective neutralizing material (ENM). Fineness factor (F.F.), the Laboratory number of the sample submitted., and the quantity of material shipped shall be included in the remarks or the body of the report.

